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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,180	04/13/2004	Reynaid Gelinas	13585	3726

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CHICAGO, IL 60604

EXAMINER

MEHMOOD, JENNIFER

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/823,180

Applicant(s)

GELINAS, REYNAID

Examiner

Jennifer A. Mehmood

Art Unit

2638

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-14 is/are allowed.
- 6) ☒ Claim(s) 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ghanem (US 6,400,102).

For claim 15, Ghanem discloses a light signal, comprising: a LED light source array (col 4, lns 16-22; Fig 1, items 2, 3); functional circuitry having a switching power supply that generates a controllable DC (col 2, lns 62-67; col 5, lns 48-52) voltage and a DC current that drives said LED light source array (col 3, lns 1, 2 and 42-46), and a monitoring circuit having a LED current detector that senses an output current of said LED light source array (Fig. 1, item 10; col 5 lns 53-55; col 6, lns 14-17 and 45-49) through a flyback diode (Fig. 1, item 32) and feeds back said sensed output current to said switching power supply, which regulates the DC current provided to said LED light source array to provide a substantially constant light flow (col 6, lns 14-17 and 60-67; col 7, lns 23-26 and 41-48; Fig. 1, item 17).

For claim 16, said LED light source array is a non-linear load (col 2, lns 11-14).

For claim 17, Ghanem discloses an LED current detector that senses a current through a flyback diode and recovers a DC component of a waveform via a low-pass filter (col 4, lns 50-60; col 6, lns 45-50; Fig. 1, item 20). Even though Ghanem does not describe the filter as a low-pass filter in the text of the specification, a low-pass filter is

clearly depicted in item 20, Figure 1, where the resistor (item 21) is in series with the signal and the capacitor (item 25) is across the output.

For claim 18, Ghanem discloses said LED current detector compensates for light reduction at higher temperatures by increasing the LED light source array driving current (col 4, Ins 1-5; col 5, Ins 56-58; col 6, Ins 1-14; Fig. 5, LED Current, Lower & Upper Limit Current – as temperature increases, LED light source array driving current increases).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hutchinson et al. (US 6,614,358).

For claim 19, Hutchinson discloses a traffic light signal comprising: an LED light source array (col 1, Ins 14-17; col 3, Ins 19-25), and a LED current detector having an amplifier and at least one resistor in series with the amplifier (col 10, Ins 12-20; Fig. 16A, items R170, U5) and a power converter circuit (col 12, Ins 54-63; col 13, Ins 11-20 and 47-53; Fig. 16A,B, items U1, pin 127), said LED current detector senses an output

current of said LED light source array and provides said sensed output current to a switching power supply that regulates the current that drives said LED light source array to provide a substantially constant light flow (col 14, lns 1-12).

For claim 20, Hutchinson discloses said LED light source array includes at least one red LEDs, green LEDs and yellow LEDs connected in series and in parallel (Fig. 18A/B; col 15, lns 2-4 and 9-13; col 6, lns 54-63; Fig. 3, items 70, 72).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchinson et al. (US 6,614,358).

Hutchinson does not specifically disclose that the switching power supply provides a minimum current to said LED light source; however, Hutchinson discloses that the power switching supply provides different and selective drive currents to said LED light sources. It would have been obvious that a minimum current to said LED light source is provided within different and selective drive currents so that overall light intensity emitted by the LED array is constant (col 15, lns 53-63; col 16, lns 1-8).

Response to Remarks

7. Applicant's arguments (remarks), see page 6, last paragraph, filed March 13, 2006, with respect to the rejection of claim 1 under 35 USC § 102 has been fully considered and is persuasive, based on the incorporation of allowable subject matter. Therefore, the rejection has been withdrawn.

Allowable Subject Matter

8. Claims 1, and 3-14 are allowed.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

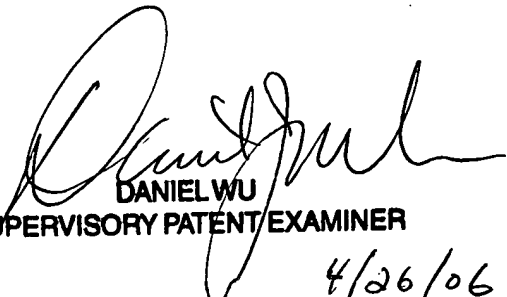
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Mehmood whose telephone number is (571) 272.2976. The examiner can normally be reached on M-F from 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Daniel Wu, can be reached at (571) 272.2964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jennifer A. Mehmood
April 17, 2006


DANIEL WU
SUPERVISORY PATENT EXAMINER
4/26/06